

FM Translator W264DT CP BNPFT-20180731AAA
CH 264D – 100.7 MHz – 0.200 kW
Clyde, NC

Proposed
CH 264D – 100.7 MHz – 0.220 kW
Clyde, NC

June 25, 2021

Technical Narrative

This Technical Narrative and attached exhibits were prepared on behalf of Auslator, LLC, (“Auslator”), permittee of FM translator construction permit BNPFT-20180731AAA for W264DT, Facility ID No. 137976, Clyde, North Carolina. Auslator herein is filing a minor mod application to modify W264DT construction permit BNPFT-20180731AAA. The purpose of this construction permit modification is to change the transmit location to a nearby tower 150 feet in overall height that is not registered with an Antenna Structure Registration (ASR) number.

W264DT will be used as a fill-in translator for full power FM station WOXL-FM, Facility ID No. 37242, Biltmore Forest, NC. Auslator has obtained written retransmission consent from Saga Communications Corporation of North Carolina LLC, licensee of WOXL-FM. The modified W264DT would operate on Channel 264D (100.7 MHz) with 220 watts ERP directional with the transmit antenna located at 10 meters height above ground level, 1374 meters AMSL and 456.77 meters HAAT. An exhibit demonstrates that the proposed FCC F(50,50) 60 dBu contour of the new facility is contained within the WOXL-FM 60 dBu contour. Therefore it is believed that this application is in compliance with Section 74.1201(g) of the Commission’s rules. The Class A FM Channel Study that is included as an exhibit is provided as a convenience to FCC staff to help identify potential contour protection issues. Section 74.1204 contour protection are included for co-channel LPFM station WRES-LP, Channel 264L1, Ashville, NC, co-channel full power FM station WBGQ, Channel 264A, Bulls Gap, TN, first adjacent full power FM station WSSL-FM, channel

263C0, Gray Court, SC and co-channel LPFM station WTIJ-LP, Channel 264L1, Bryson City, NC
The current W264DT cp tower site and the proposed site are only 61 meters apart. Therefore, an exhibit showing compliance with Section 74.1233(a) "Common Overlap" is not included. Exhibits are included to demonstrate compliance with RF exposure limits and Section 106 (Environmental).

W264DT CP Mod

Clyde, NC
BNPFT20180731AAA
Latitude: 35-34-04.70 N
Longitude: 082-54-25.60 W
ERP: 0.22 kW
HAAT: 456.77 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 1374.0 m
Elevation: 1364.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

WOXL-FM

Biltmore Forest, NC
BLH20160926ADQ
Latitude: 35-36-04.40 N
Longitude: 082-39-06.50 W
ERP: 9.50 kW
HAAT: 339 m
Channel: 243
Frequency: 96.5 MHz
AMSL Height: 1064.0 m
Elevation: 1010.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: None

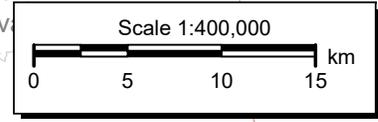
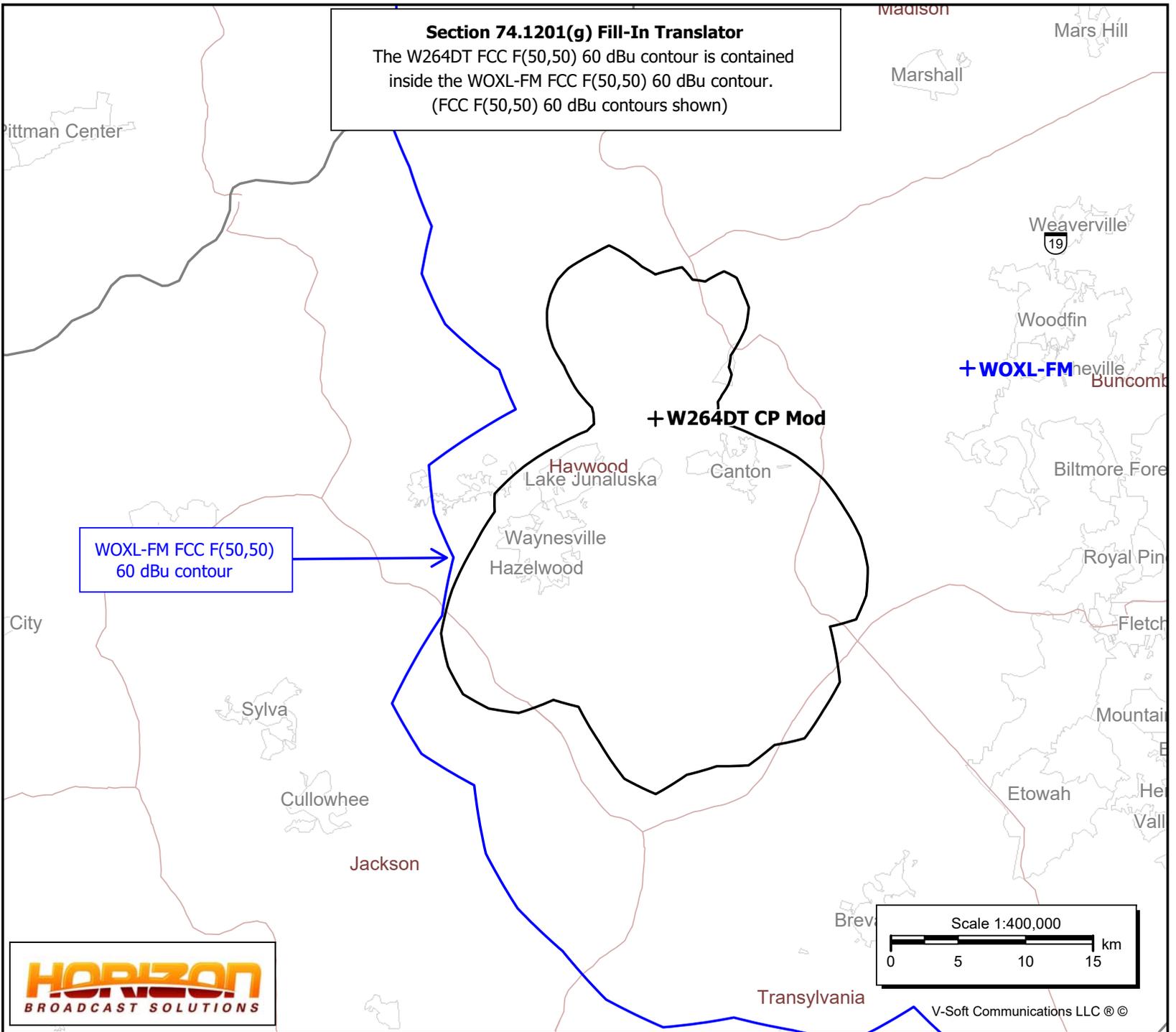
Section 74.1201(g) Fill-In Translator

The W264DT FCC F(50,50) 60 dBu contour is contained inside the WOXL-FM FCC F(50,50) 60 dBu contour.
(FCC F(50,50) 60 dBu contours shown)

WOXL-FM FCC F(50,50)
60 dBu contour

+ W264DT CP Mod

+ WOXL-FM



V-Soft Communications LLC ©

W264DT Class A FM Channel Study

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REFERENCE                                     DISPLAY DATES
35 34 04.7 N.                               CLASS = A   Int = AA   DATA   06-24-21
82 54 25.6 W.                               Current Spacings to 3rd Adj.   SEARCH 06-25-21
----- Channel 264 - 100.7 MHz -----

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Call	Channel	Location	Azi	Dist	FCC	Margin
Lat.	Lng.	Ant	Power	HAAT		

W264DT	CP -D 264D	Clyde	NC 307.8	0.1	84.5	-84.4
35 34 05.9	82 54 27.5	DVN	0.200 kW	0 M		
	Auslator, LLC					

WRES-LP	LIC 264L1	Asheville	NC 84.2	32.1	66.5	-34.4
35 35 48.4	82 33 17.4	CN	0.094 kW	31 M		
	Empowerment Resource Cente					
	BLL20040127ADI					

Note: See Section 74.1204 Contour Protection: WRES-LP

WBGQ	LIC-N 264A	Bulls Gap	TN 344.9	93.4	114.5	-21.1
36 22 48.3	83 10 46.6	NCN	0.330 kW	384 M		
	Cherokee Broadcasting					
	BLH20010122AAF					

Note: See Section 74.1204 Contour Protection: WBGQ

WSSL-FM	LIC-N 263C0	Gray Court	SC 146.6	132.2	151.5	-19.3
34 34 18.4	82 06 43.4	NCN	100.000 kW	381 M		
	Ihm Licenses, LLC					
	BLH20050923AFT					

Note: See Section 74.1204 Contour Protection: WSSL-FM

WTIJ-LP	LIC 264L1	Bryson City	NC 251.6	51.6	66.5	-14.9
35 25 12.3	83 26 48.5	CN	0.100 kW	-200 M		
	Grace Christian Academy					
	BLL20151216AFX					

Note: See Section 74.1204 Contour Protection: WTIJ-LP

WHSP-LP	LIC 265L1	Black Mountain	NC 84.5	53.1	55.5	-2.5
35 36 45.4	82 19 27.4	CN	0.100 kW	-48 M		
	Church Of The Incarnation					
	BLL20170125AGJ					

WZJS	LIC 264A	Banner Elk	NC 53.2	115.2	114.5	0.8
36 11 03.4	81 52 47.4	CN	0.150 kW	593 M		
	High Country Adventures, L					
	BLH20080422AAN					

WUSY	LIC 264C0	Cleveland	TN 260.2	219.8	214.5	5.3
35 12 26.3	85 17 09.9	CN	100.000 kW	363 M		
	Entercom License, LLC					
	BLH19890711KC					

W266CP	LIC-D 266D	Candler	NC 96.8	37.5	25.5	12.0
35 31 39.4	82 29 48.4	DVN	0.250 kW	0 M		
	Ihm Licenses, LLC					
	BLFT20180530AAD					

W262CO	LIC-D 262D	Asheville	NC 96.8	37.6	25.5	12.1
35 31 39.4	82 29 45.4	DCN	0.250 kW	0 M		
	Saga Communications Of Nor					
	BLFT20150526ABH					

W267AD	APP-D 267D	Cherokee	NC 235.5	47.2	25.5	21.7
35 19 38.3	83 20 08.5	DCN	0.250 kW	0 M		
	Blue Ridge Broadcasting Co					
	0000125599					

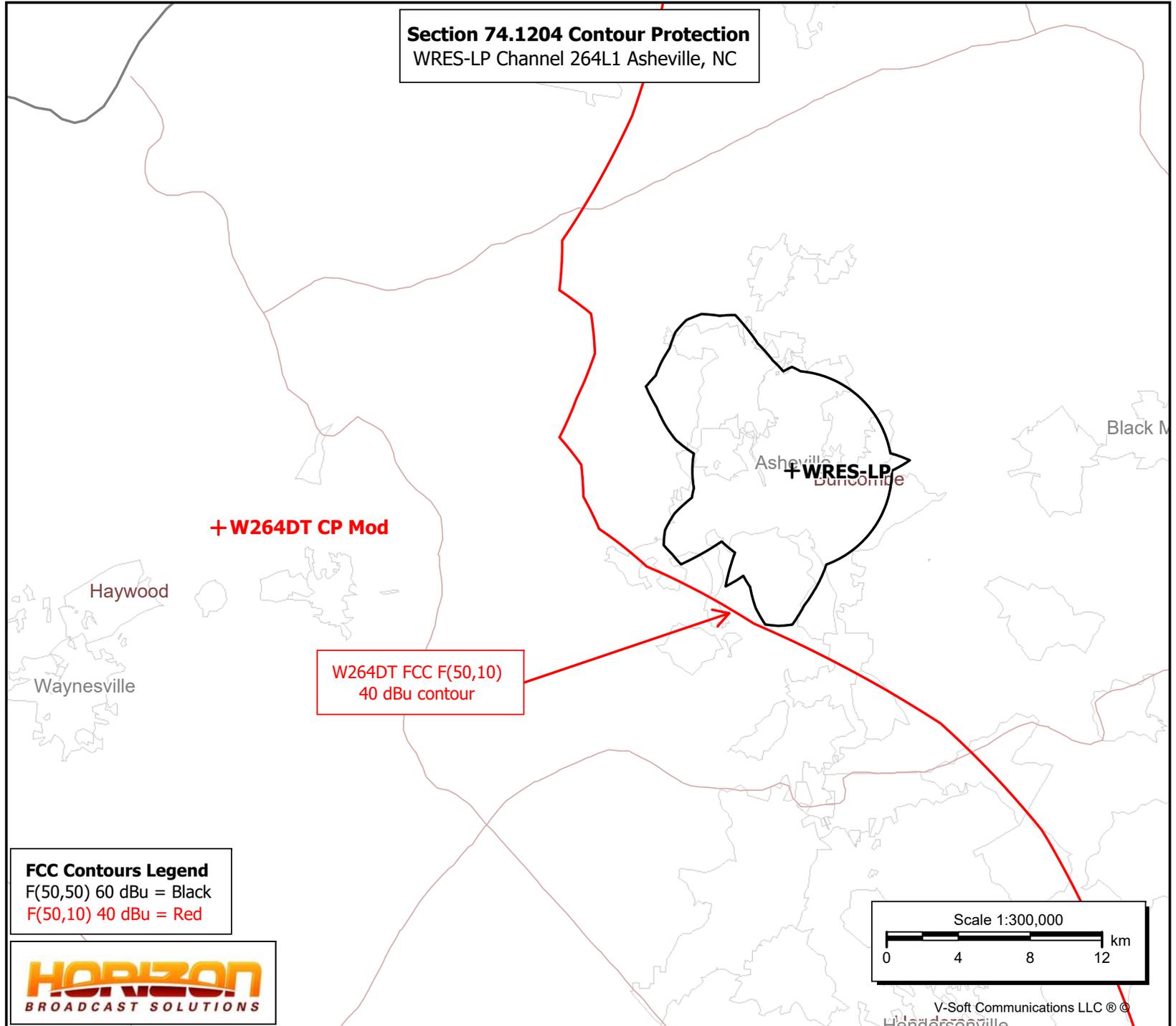
W267AD	LIC-D 267D	Cherokee	NC 235.5	47.2	25.5	21.7
35 19 38.3	83 20 08.5	DCN	0.114 kW	0 M		
	Blue Ridge Broadcasting Co					
	BLFT20160613AAE					

Call	Channel	Location		Azi	Dist	FCC	Margin
Lat.	Lng.	Ant	Power		HAAT		
W264CJ	LIC-D 264D	Knoxville		TN 295.5	107.9	84.5	23.4
35 58 50.0	83 59 15.0	DCN	0.250 kW	0 M			
	Ra-Tel Broadcasting Compan		BLFT20160422AAS				
W264BY	LIC-D 264D	Kingsport		TN 15.0	110.3	84.5	25.8
36 31 37.3	82 35 10.5	DVN	0.070 kW		270 M		
	Appalachian Educational Co		BLFT20081007ADC				
WJFS-LP	LIC 266L1	Gatlinburg		TN 291.4	54.5	28.5	26.0
35 44 43.3	83 28 06.5	CN	0.100 kW		29 M		
	Gatlinburg Church Of Chris		BLL20180511AAS				
W265AZ	CP -D 265D	Franklin		NC 234.5	75.3	33.5	41.8
35 10 24.3	83 34 51.5	DCN	0.200 kW	0 M			
	Radio Training Network, In		BPFT20180927ABU				
W265AZ	LIC 265D	Franklin		NC 234.5	75.3	33.5	41.8
35 10 24.3	83 34 51.5	CN	0.010 kW		679 M		
	Radio Training Network, In		BLFT19971229TH				
WROQ	LIC-D 266C1	Anderson		SC 150.3	117.5	74.5	43.0
34 38 51.4	82 16 12.4	DCN	100.000 kW		269 M		
	Entercom License, LLC		BLH20180817AAD				
WCYQ	LIC 262C	Oak Ridge		TN 300.8	138.5	94.5	44.0
36 11 54.2	84 13 51.7	CN	98.000 kW		618 M		
	Sm-Wcyq, LLC		BMLH20170117AEC				
WEPR	LIC 211C	Greenville		SC 146.9	82.9	28.5	54.4
34 56 29.4	82 24 37.4	CN	85.000 kW		361 M		
	South Carolina Educational		BMLED20100628BQG				
W266DO	LIC-D 266D	Spruce Pine		NC 64.2	80.5	25.5	55.0
35 52 48.4	82 06 15.4	DCN	0.170 kW	0 M			
	Mountain Valley Media, Inc		0000127266				
W265DW	LIC-D 265D	Rutherfordton		NC 102.0	91.4	33.5	57.9
35 23 35.4	81 55 22.4	DCN	0.250 kW	0 M			
	Isothermal Broadcasting Co		BLFT20190613AAN				
W265CI	LIC-D 265D	Piney Grove		TN 33.2	93.2	33.5	59.7
36 16 09.4	82 20 16.5	DCN	0.010 kW		389 M		
	Positive Alternative Radio		BLFT20130402AAL				

W264DT CP Mod
Clyde, NC
BNPFT20180731AAA
Latitude: 35-34-04.70 N
Longitude: 082-54-25.60 W
ERP: 0.22 kW
HAAT: 456.77 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 1374.0 m
Elevation: 1364.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

WRES-LP
Asheville, NC
BLL20040127ADI
Latitude: 35-35-48.40 N
Longitude: 082-33-17.40 W
ERP: 0.094 kW
HAAT: 30.71 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 718.0 m
Elevation: 677.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

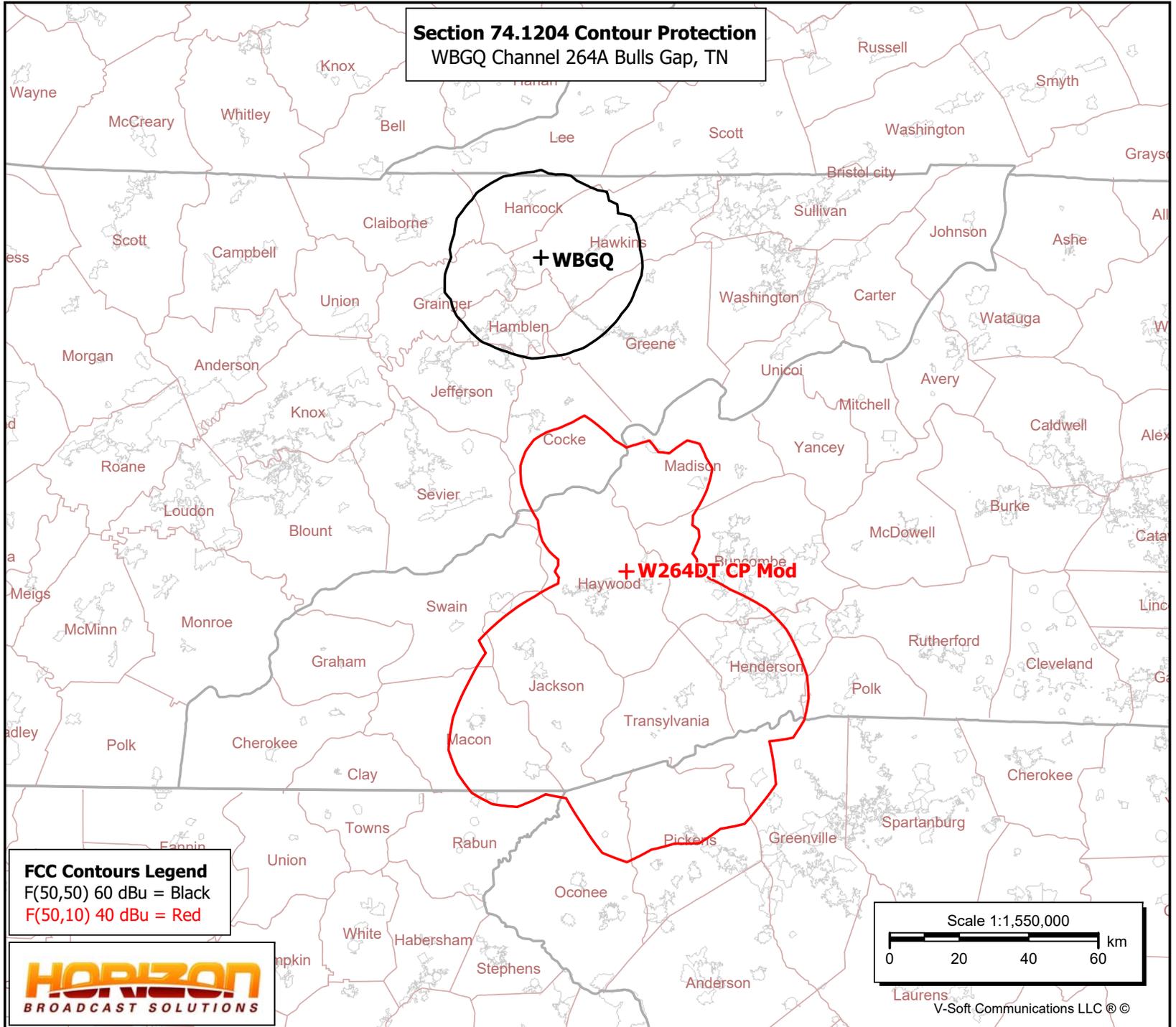
Section 74.1204 Contour Protection
WRES-LP Channel 264L1 Asheville, NC



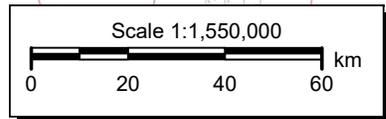
W264DT CP Mod
Clyde, NC
BNPFT20180731AAA
Latitude: 35-34-04.70 N
Longitude: 082-54-25.60 W
ERP: 0.22 kW
HAAT: 456.77 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 1374.0 m
Elevation: 1364.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

WBQG
Bulls Gap, TN
BLH20010122AAF
Latitude: 36-22-48.30 N
Longitude: 083-10-46.60 W
ERP: 0.33 kW
HAAT: 384 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 809.0 m
Elevation: 786.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

Section 74.1204 Contour Protection
WBQG Channel 264A Bulls Gap, TN



FCC Contours Legend
F(50,50) 60 dBu = Black
F(50,10) 40 dBu = Red



Laurens
V-Soft Communications LLC ©

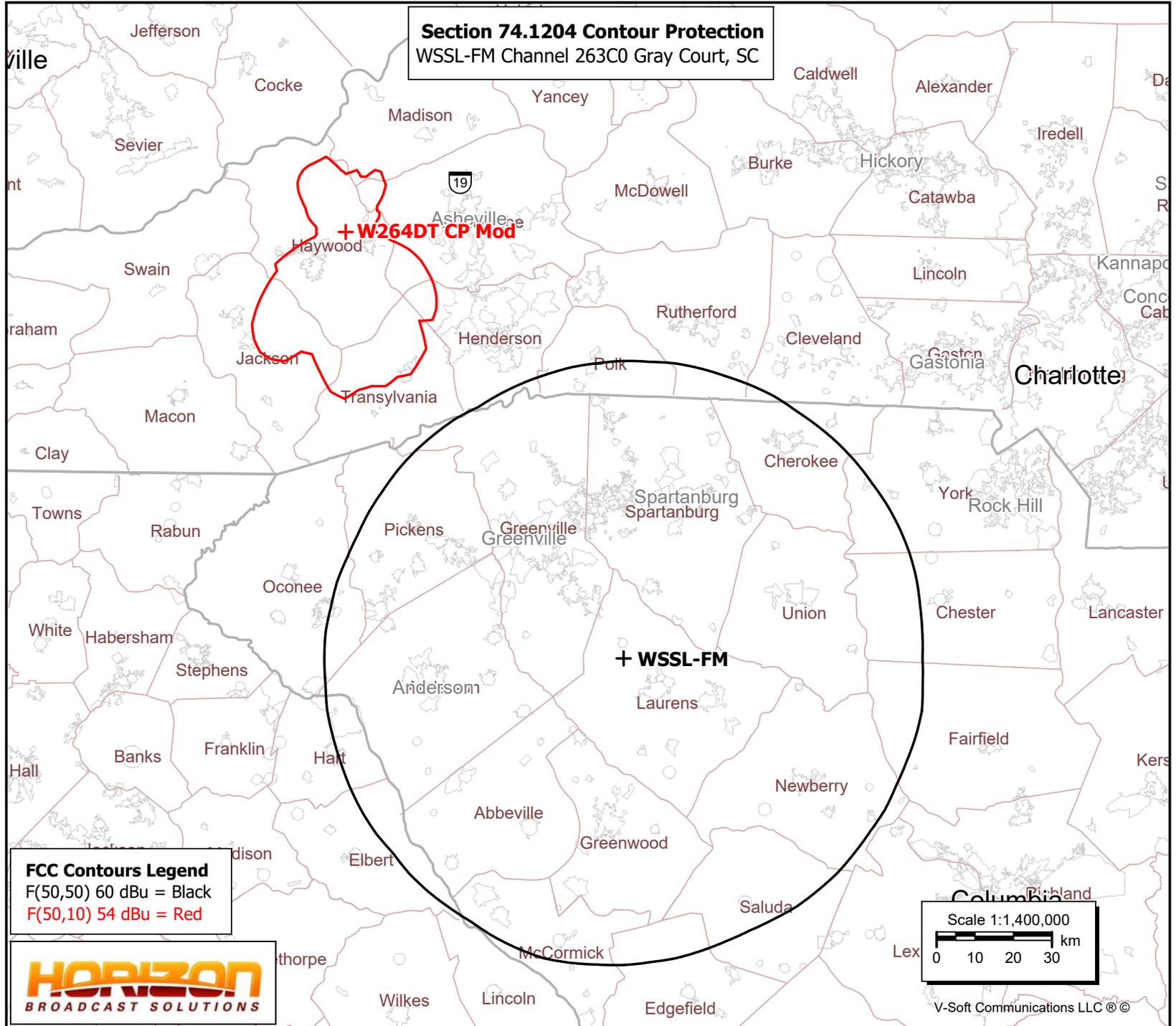
W264DT CP Mod

Clyde, NC
BNPFT20180731AAA
Latitude: 35-34-04.70 N
Longitude: 082-54-25.60 W
ERP: 0.22 kW
HAAT: 456.77 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 1374.0 m
Elevation: 1364.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

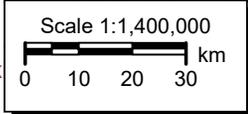
WSSL-FM

Gray Court, SC
BLH20050923AFT
Latitude: 34-34-18.40 N
Longitude: 082-06-43.40 W
ERP: 100.00 kW
HAAT: 381 m
Channel: 263
Frequency: 100.5 MHz
AMSL Height: 587.0 m
Elevation: 239.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

Section 74.1204 Contour Protection
WSSL-FM Channel 263C0 Gray Court, SC



FCC Contours Legend
F(50,50) 60 dBu = Black
F(50,10) 54 dBu = Red



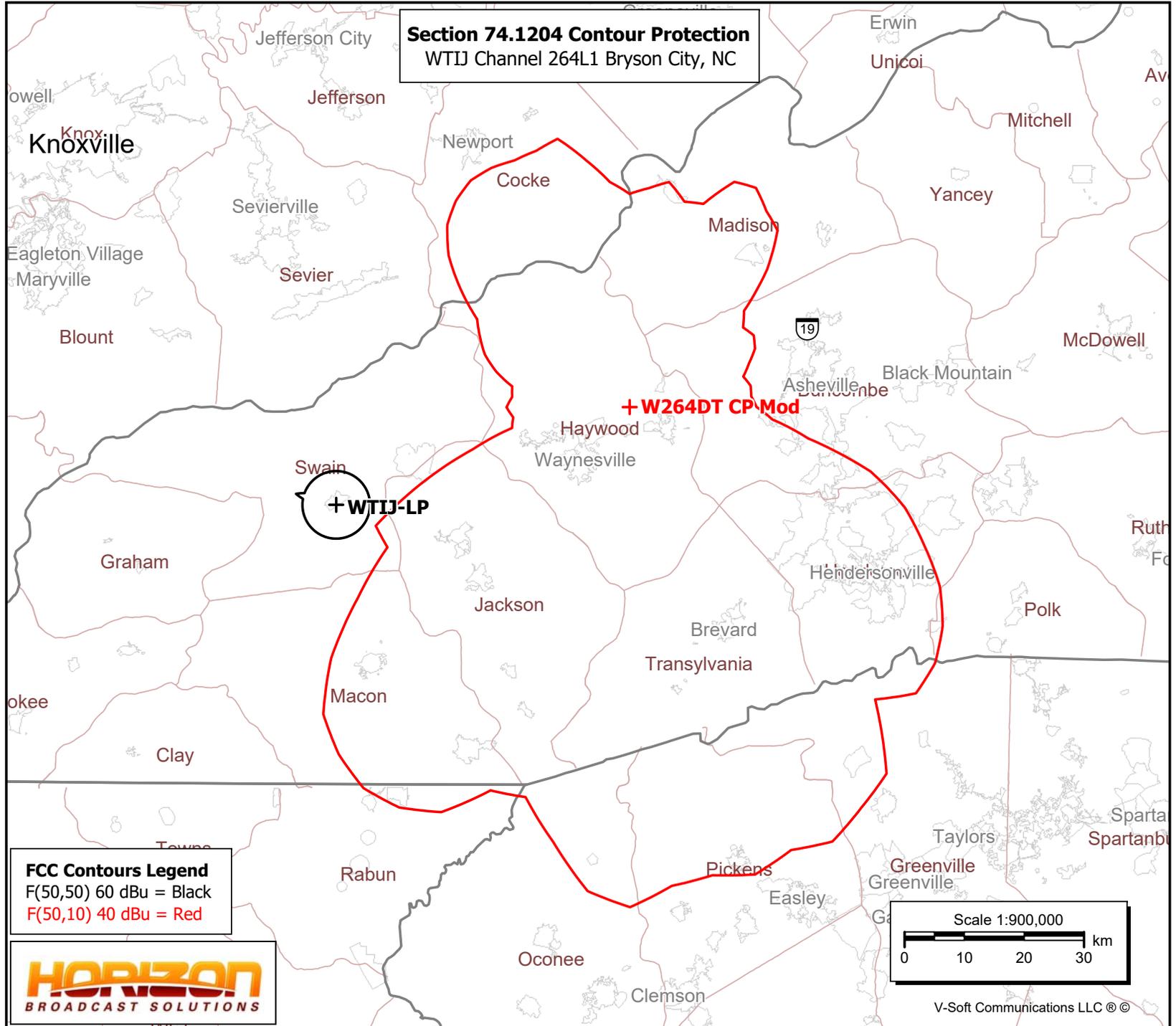
W264DT CP Mod

Clyde, NC
BNPFT20180731AAA
Latitude: 35-34-04.70 N
Longitude: 082-54-25.60 W
ERP: 0.22 kW
HAAT: 456.77 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 1374.0 m
Elevation: 1364.0 m
Horiz. Pattern: Directional
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

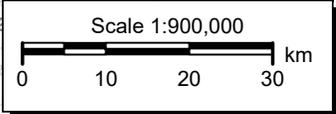
WTIJ-LP

Bryson City, NC
BLL20151216AFX
Latitude: 35-25-12.30 N
Longitude: 083-26-48.50 W
ERP: 0.10 kW
HAAT:-200 m
Channel: 264
Frequency: 100.7 MHz
AMSL Height: 626.0 m
Elevation: 605.0 m
Horiz. Pattern: Omni
Vert. Pattern: No
Prop Model: FCC Model
Loc. Variability: 50.0%
Time Variability: 50.0%
HAAT Mthd: FCC

Section 74.1204 Contour Protection
WTIJ Channel 264L1 Bryson City, NC



FCC Contours Legend
F(50,50) 60 dBu = Black
F(50,10) 40 dBu = Red



**Human Exposure to Radiofrequency Electromagnetic Field
&
Section 106 Compliance
(Environmental)**

A study has been made to determine whether this proposal is in compliance with 47 C.F.R. 1.1307 of the Commission's rules and with OET Bulletin #65, dated August 1997, regarding human exposure to radio frequency radiation in the vicinity of broadcast towers. Auslator LLC, ("Auslator"), proposes to modify construction permit BNPFT-20180731AAA for W264DT, Facility ID No. 137976, Channel 264D, Clyde, NC. W264DT will simulcast FM station WOXL-FM, Facility ID No. 37242, Biltmore Forest, NC. The tower is located at 35° 34' 04.7" N ~ 82° 54' 25.6" W (NAD 83). The tower is 45.7 meters in overall height and is not registered with an Antenna Registration Structure "ASR" number. The proposed antenna is a side mounted Kathrein-Scala CA2-FM one bay horizontally polarized directional antenna with a center of radiation of 10 meters AGL. W264DT would operate on Channel 264D, 100.7 MHz, with 220 watts ERP directional at 456.77 meters HAAT. The use of existing transmitting locations has been characterized as being environmentally preferable by the Commission, according to Note 1 of § 1.1306 of the FCC Rules. Because the proposed new facility proposes to operate from an existing tower and no modifications to the tower are being change, it is believed to be exempt from a Section 106 review by the SHPO/THPO.

The proposed operation was evaluated for human exposure to RF energy using the procedures outlined in the Commission's OET Bulletin Number 65. The Kathrein-Scala antenna is not included in the revised OET FM Model Program. Therefore Type 1, Ring-and-stub, or any type not-otherwise described is used as a worst case scenario. Using Antenna Type 1, the maximum calculated signal density near the tower at two meters above ground level attributable to the proposed facility is $31.865 \mu\text{W}/\text{cm}^2$ at 4.6 meters, which is 15.93 percent of the general population/uncontrolled maximum permitted exposure limit.

The applicant will see that signs are posted in the vicinity of the tower, warning of potential radio frequency hazards at the site. The applicant will cooperate with other users of the tower to reduce power of the facility, or discontinue operation, as necessary to limit human exposure to levels less than specified by the Federal Communications Commission should anyone be required to climb the tower for maintenance or inspection.

FM Model

Radio Frequency Safety

FCC Policy on Human Exposure

RF Safety FAQ

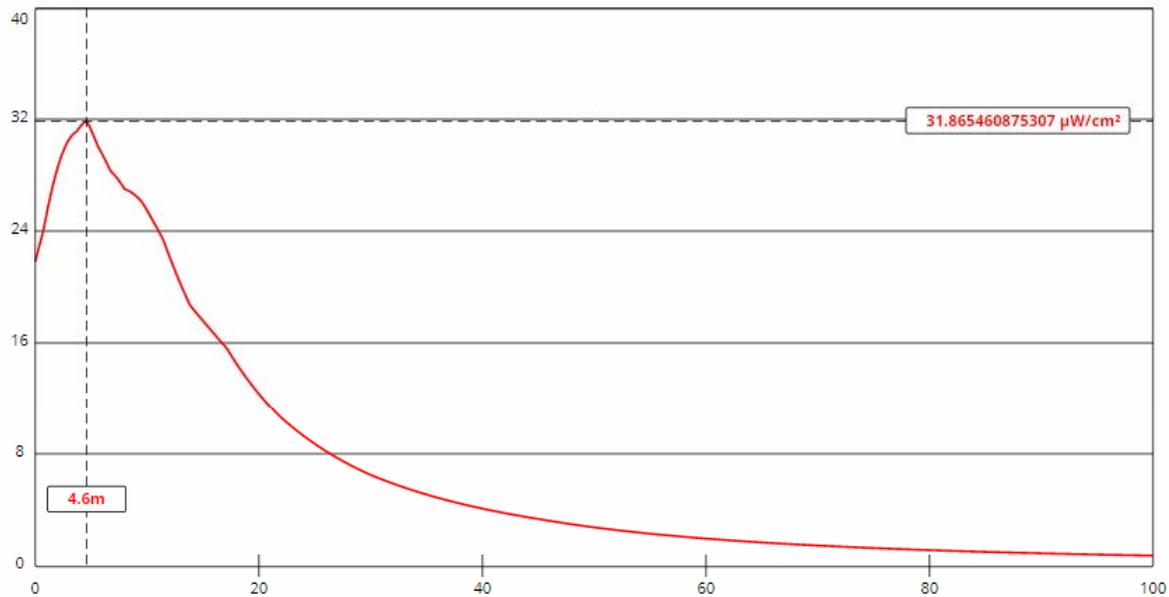
Body Tissue Dielectric Parameters

RF Safety Highlighted Releases

FM Model

The FM Model calculator determines the potential exposure from radiofrequency (RF) electromagnetic fields produced by FM broadcast station antennas at ground level. The FM Model software was originally developed by the FCC in 1997 as a standalone executable program and this improved version provides more precise predictions and runs via a JavaScript enabled web browser. The FM Model is originally based on measured data published in 1985 by the EPA.

[Show More....](#)



[View Tabular Results +](#)

Channel Selection	Channel 264 (100.7 MHz) ▼		
Antenna Type +	EPA Type 1: Ring-and-Stub or "Other" ▼		
Height (m)	<input type="text" value="10"/>	Distance (m)	<input type="text" value="100"/>
ERP-H (W)	<input type="text" value="220"/>	ERP-V (W)	<input type="text" value="0"/>
Num of Elements	<input type="text" value="1"/>	Element Spacing (λ)	<input type="text" value="1"/>
Num of Points	<input type="text" value="500"/>	<input type="button" value="Apply"/>	